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AMHERST COLLEGE

" Report of

The Committee on the Future Size of the College

and Related Subjects "

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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May, 1958

ED000651

AMHERST COLLEGE

REPORT OF

THE COMMITTEE ON THE FUTURE SIZE OF THE COLLEGE

AND RELATED SUBJECTS

Cesar L. Barber
Bruce B. Benson
Theodore Koester
John A. Moore
Willard L. Thorp, Chairman

May 1958

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I. INTRODUCTION

This committee was appointed "to make a study and recommendations on the future size of the College and related problems." Size can be measured according to various components of the College - students, faculty, courses offered, endowment, budget, classroom space, alumni, library books, parking places. We have taken our assignment to center about the size in terms of students. However, the College is a complex of many inseparable elements which have some kind of functional relationship to each other. Substantial changes in the quantity of any one of the elements is certain to necessitate changes in others. In fact, the problem is essentially one of evaluating the effect which a change in the number of students will have on the requirements for other components and on the quality of the educational experience provided.

Our discussions quickly made it evident that the assignment to consider "related problems" was a task without limit. Every aspect of college performance and life becomes involved in the question of size. We have therefore found the implications of our assignment to set us a challenge which far exceeded the limits of our time and energy.[a/] We have held 21 meetings together and devoted many additional hours to less formal discussions. We have not found any revolutionary idea or new conception so appealing that we felt justified in spending our time filling in detailed specifications. We have found advantages as well as difficulties in many suggestions. This report does not present a blue-print for the future. It is merely a first step, suggesting various con-

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a/ It was with considerable relief that we learned near the end of our deliberations of the establishment of a special faculty committee to re-examine the curriculum.

siderations which seem important to us. We did reach some general conclusions, some specific recommendations, and some suggestions as to matters on which we feel that further study might yield valuable results. They are developed in the report and summarized in the last section.

We approached our task with a sense of urgency, recognizing that the well-publicized impending crisis in higher education in American presents a challenge which cannot easily be ignored by any administrative officer or faculty member who has any concern for the future of education. The least that any college can do at the present time is to make a diligent and searching inquiry as to whether it can make its type of education available to a larger number of students in such a way as to be consonant with the educational objectives which the College is trying to achieve.

II. THE PROBLEM OF SIZE IN HISTORICAL PERSPECTIVE

This is not the first time in the history of Amherst College that questions have been raised concerning its size. During the growth of the College from an enrollment of 169 in 1840 to one of 857 in 1940, with an additional increase since 1940 to an enrollment of about 1050 students, there were certain times when the size of the College was subjected to special consideration. For example, in 1928, when the enrollment was about 770, a Faculty Committee recommended "that the size of the undergraduate body be eventually set at about 600, and second, that the entering class for 1928-1929 be limited to 200." This decision seems to have been influenced by considerations of finance and physical plant and based upon the conviction that any further increase in size would threaten faculty-student relations, both intellectual and social.

In 1934, when the College enrollment was 799, an Alumni Committee announced its agreement with President King who had stated in his Annual Report that "the College is now about as large as can be accommodated by our present faculty and our present plant." Although President King apparently had taken his position on the basis of the relatively tangible criteria of facilities and faculty, the Committee stated that the most important reason for its agreement with President King was that "the small college, because of its limited enrollment, is able to offer certain advantages, of which, perhaps the most important is the opportunity for intimacy of friendships of young men as students, with great men as teachers." It also emphasized "the advantages which have resulted from a small, closely-knit undergraduate body."

The Faculty Committee on Long Range Policy (1945) took the position that "in no case should the college become any larger and it might well become smaller." It recommended that the size of the entering class be not more than 250 students, and that attrition be set at a rate which would limit the total size of the College to not more than 800 students. It did not add to the argumentation already presented in earlier reports.

Present policy appears to be that the College should be under 1000 in size (perhaps between 950 and 975), with an annual admission figure of about 250 students plus a few transfers. This figure appears to have been reached as the result of two sets of inquiries made soon after the War by President Cole. When persons active in the administration were asked for their views concerning how large they believed the College should ideally be in terms of physical facilities, the answers were almost all in the range of 900 to 1000 with a median judgment of about 960. A similar inquiry addressed to faculty members in which they were asked to base their judgment upon educational considerations produced a wide variation in replies around a median figure of 965. Since that time, it has frequently been stated that the objective is a total enrollment of about 965.

The significance of these two inquiries is difficult to evaluate since each participant was free to determine his own criteria. The conclusions were strictly in accord with tradition, since they reflected the view that the College should become somewhat smaller than it was at the time of the inquiry.

The most recent pronouncement concerning the size of the

College was made by the Review Committee of the New Program at Amherst.[a/] Accepting with some reluctance the new enrollment goal of 965, they stated that "while this figure is a good deal higher than the one suggested by the Committee (Long Range Policy Committee), it is, we hope, low enough to insure the preservation of the values of a small college."

Despite the efforts that have been made to achieve an enrollment goal of 965 or 975, the data presented in Table I show that we have not been successful in reducing the size of the College to a point very close to our stated goal. At least two factors are usually cited as having something to do with the difficulties in stabilizing the College enrollment at a figure of about 965. For one thing, in recent times it has become increasingly difficult to

Table I
Amherst College Enrollments Since 1946

Year	Seniors	Juniors	Sophomores	Freshmen	Total
1946-47	205	225	294	430	1154
1947-48	216	276	416	255	1163
1948-49	257	407	264	275	1203
1949-50	391	247	286	265	1189
1950-51	257	275	252	267	1051
1951-52	254	238	256	299	1047
1952-53	222	247	290	263	1022
1953-54	240	284	251	272	1047
1954-55	289	248	265	254	1056
1955-56	250	261	237	307	1055
1956-57	253	237	288	280	1058
1957-58	242	276	271	255	1044

estimate precisely the number of students who will finally arrive in a given entering class. With high school graduates applying to many colleges and even making their acceptance deposits in more than one, any given figure can only be a target which may be as elusive as targets often are. Secondly, the attrition rate no longer serves to decrease the size of the College as it did formerly. It is interesting to compare the attrition rate at Amherst College since 1946 with what it was in the 1920s and 1930s. The data needed for such a comparison are given in Table II.

It should be noted that the "attrition percentages" given below underestimate the amount of attrition since they neither make allowance for the number of transfers who have been added between freshman and senior year nor do they take into account the fact that some members of each senior class never graduate. The underestimation is quite probably greater for the earlier periods and thus the change in rate is probably even greater than is indicated by the statistics. The figures clearly show that the hope of the Long Range Policy Committee has not materialized, that the size of the College "be regulated by the elimination of the most unsatisfactory students."

With the return of war veterans, the College reached a peak enrollment in 1948-49 of 1203. Since 1950, the number has been unusually stable in the neighborhood of 1,050. By other measures, the College has expanded in size during this same period. The number on the faculty has increased by about 20 per cent, substantial additions have been made to the physical facilities, the endowment has increased, and the overall operating budget is considerably larger.

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a/ Kennedy, Gail, edit., Education at Amherst, New York, 1955, pp. 301-303

Table II

Number of Seniors in the Classes of 1923-1929 Compared with the Number of Students who Entered College Four Years Previously

Class of	Number of students in freshman class	Number of students in senior class
1923	146	88
1924	169	126
1925	170	95
1926	179	122
1927	168	125
1928	211	141
1929	233	159
	1276	856
Mean	182.29	122.29

Average Attrition = 33%

1930	234	153
1931	232	153
1932	197	127
1933	201	142
1934	209	162
1935	191	145
1936	201	184
1937	239	195
1938	229	183
1939	243	201
	2176	1645
Mean	217.60	164.50

Average Attrition = 24%

1951	255	257
1952	275	254
1953	265	222
1954	267	240
1955	299	289
1956	263	250
1957	272	253
	1896	1765
Mean	270.86	252.14

Average Attrition = 6.9%

Average Last Three Years = 5.0%

III. THE PROBLEM IN ITS PRESENT SETTING

Much has been said about the increased demand for higher education which will appear during the next decade. However, so far as Amherst College is concerned, the pressure is here already. The problem of admissions to Amherst today is not one of recruitment but of selection and rejection. In terms of the qualifications of present applicants, Amherst could easily admit twice as many freshmen as it does without any significant deterioration in the quality of their estimated potentials. The probability is that even with the reduction in applications which might result from substantial increases in tuition and with a considerable increase in size, Amherst still could not reach the equilibrium point with respect to admissions where demand and supply would be equal. The population bulge will not create a new problem for Amherst, but it will make the selection process increasingly difficult.

One might argue that the more applications a college has, the better, since it can then select from a wider list of possibilities. But increased pressure upon all college and university facilities is bound to have its repercussions upon each, and upon the institutional decisions which are socially tolerable. Only in recent years has Amherst found it necessary to reject excellent applicants, and under these circumstances, it might have considered the question of expansion because it felt that it should make its type of education available to as large a number as possible. However, so long as there were open doors in many other institutions, there was little criticism of a policy of limitation. This condition is rapidly disappearing. The next few years will undoubtedly see a rapid rise of criticism of educational arrangements. In response, there will be much reappraising of values and new experimentation. If Amherst decides to hold to its present level, its existence will be easier if it can defend its policy on a rational basis.

Historically, Amherst College has increased in size with the growth of the nation and with increased demands for a higher education. Hence the planning of another period of expansion would not be inconsistent with the historical tradition of the College. A little more than a century ago the enrollment of Amherst College was only 169, and presumably there were those at that time who argued for the virtue of the small college and who resisted any attempts at further expansion. But Amherst College grew in size and also many would consider, from our present perspective, that it grew in stature and wisdom. The experience of Amherst in recent years has been like that of other colleges, as shown in Table III.

At least in theory, there may be a number of reasons why a particular college might happily increase in size. It may feel that it can do its job more satisfactorily on a somewhat larger scale. It may have surplus resources which are not being utilized. It may feel that prestige is related to size and that prestige may be helpful in recruitment of students and faculty. It may be that there are economies of scale in connection with overhead costs which might ease its financial problems. However, the simple fact is that colleges usually have grown simply because of an expanding demand for their services. It is such a general increase in demand which has brought the problem of size currently very much to the fore.

It is easy to reach the conclusion that Amherst College should not increase in size and that the emphasis should be placed upon the maintenance of a small college which specializes in high-quality education. One might argue that it would be a disservice to American education, in the long run, to permit the small college to disappear along with all of the values which

Table III

Enrollment Trends at Selected Colleges and Universities
1940-1956

School	1940	1956	% Increase 1940-1956
Brown	2,224	3,667	65
Yale	5,349	8,449	58
Radcliffe	989	1,477	49
Princeton	2,680	3,635	36
Harvard[1]	7,927	10,566	33
Bowdoin	638	824	29
Cornell	8,580	10,936	27
AMHERST	857	1,077	26
Williams	842	1,060	26
Wesleyan[2]	761	936	23
Mount Holyoke	1,100	1,338	22
Dartmouth	2,563	3,091	21
Vassar	1,240	1,470	19
Wellesley	1,510	1,715	14
Smith	2,073	2,349	13

[1]Full-time students only

[2]Including Department of Teacher Services

Source: Annual Surveys by Raymond Walter, School and Society, 12/14/40, 12/8/56

can only be realized in the small college. It might be perfectly all right for a college with an enrollment of ten thousand to increase to twenty or even fifty thousand. Perhaps nothing very significant is lost by expansion once one has reached mass enrollments. But it might cause a significant transformation were a college of 1000 to double its enrollment or perhaps to expand by a much smaller amount. Amherst College should resist any pressures that would attempt to force a departure from its historic role in American society. Following this line of argument, the safest course would seem to be to hold closely to the present size of the College thus avoiding the possibility that expansion might destroy the significant values of an Amherst education. This is really to argue that the proper role of Amherst College in the future is not to try to give an education to more students but a better education to the number of students we now have.

We have not been satisfied with such easy conclusions. In fact, as they stand, they are merely simple declarations of faith in the value of the small college. Even the classification of colleges as small, medium, or large involves arbitrary distinctions. We have had to consider what there is that is of special value about a small college and how small it must be to produce that value. We have tried to disregard our preconceptions and biases in favor of the status quo, or of change, and to assess the problem of size in terms of the ability of Amherst College in its future to continue to offer the type of educational experience of which small colleges have been justifiably proud.

It seems clear that the present overall educational pattern will have to change as the colleges and universities try to accommodate a higher pro-

portion of a larger age-group. We have not questioned the nature of the expanded demand but it does create a special problem for a college like Amherst, which has always defined itself as a "small college." However, it seems to us that Amherst has a very special responsibility in the coming years to put all its emphasis upon quality when the problem is usually regarded as one of quantity.

Without question, the initial national adjustment during the next decade will have to be one of lowering standards. The necessary expansion in teaching staff will require the use of less experienced and less qualified teachers. In spite of the stimulation to experimentation and mechanization which this will bring, it seems inevitable that there will be a deterioration of the quality of higher education. This deterioration need be only a short-run phenomenon, if higher standards are continually held before us, and if education is given sufficient priority in our programs of social and economic development. On the other hand, the danger is that new and lower standards may gradually take over and become acceptable as adequate.

Against this background, we feel that Amherst's first duty is to work steadily at trying to give a better and better demonstration of quality in the educational field. In a world where resources are limited, we must show what can be done when they are relatively plentiful. This position should not permit any comfortable relaxation or complacency. We believe that it may be a harder task to maintain and improve quality than it would be to extend a familiar operation to a larger scale. Amherst always has striven for quality, and this seems to be even more important in the years ahead.

The setting of quality as the primary objective does not provide a clear answer to the question of size. Is Amherst even too large today, as would be indicated by the current declared goal? Or can Amherst admit even more students without a sacrifice of quality? These questions require us to consider what the particular values are which we wish to preserve and their relationship to size. Then we must examine the limits imposed by existing and prospective resources, both in terms of facilities and faculty. Finally, we must consider ways and means whereby the College might use its present resources more effectively.

IV. THE VALUES OF THE SMALL COLLEGE

A. The Sense of Common Experience

Education at Amherst is defined in considerable degree by the fact that it is a small college in a small town with unusual resources of faculty and plant, concentrating on the teaching of the liberal arts to undergraduates. All of this conspires to bind its elements into a single community. Such a common existence is not possible in a large university or in a large metropolitan center. It is not true that, even in a college as small as Amherst is today, everyone knows everybody else, but it is true that all have the sense of a common experience. We are clear that Amherst College must remain small enough to maintain its identity as a community. The difficulty is that it is extremely hard to decide at what point any serious fragmentation would begin.

It is easy to make contrasts with large city colleges where students scatter and where there are many competing attractions. Professors lecture to thousands and students are lost in enormous cafeteria lines or the subway rush. Under such circumstances, there is little which gives the student body a sense of intimacy or of common purpose. Some of the larger universities have tried to meet the problem by emphasizing sub-groupings, either in terms of living quarters or special interest. There is no doubt but that the fact that Amherst is in a small community offering a limited variety of distractions is a strong integrating force.

This is strongly supported by the fact that it is a liberal arts college with a limited number of courses in the curriculum. During the first two years, there are certain courses which are taken by all undergraduates. This does not mean that every student knows every other student. Amherst College has long since passed the point of universal intimacy among students and faculty, if it ever was true. But there is such a degree of identical or parallel work and play that there is likely to be an important feeling of belonging to and participating in a joint enterprise.

As the first test of size, we see no reason to believe that the sense of community would be appreciably diminished by a moderate increase in size, so long as it is not accompanied by a proliferation of purposes and activities and so long as the town of Amherst remains small.

B. The Curriculum

There is no disputing the general proposition that the number of courses offered by a college is related to the size of the college. A demonstration of this relationship, based upon an examination of the number of courses offered by a selected sample of colleges ranging in size from about 500 to 3000 is presented in Table IV.

There are some obvious reasons why course offerings become more numerous as student enrollments increase. Larger colleges, other things being equal, will employ a larger number of faculty members than smaller colleges and each faculty member is eager to have at least one course of "his own." The young instructor may be willing to serve only as a section leader for a year or two, but soon he is demanding a place in the curriculum, or will move on to another institution where he can find one. Older faculty members also create pressures to permit their special interests to be accommodated by the addition of appropriate courses. And departments, reflecting some of the competitive aspects of the academic world, may seek

TABLE IV

Number of Courses Catalogued and Offered by Colleges of Varying Size (1956-57)

College	Approximate Enrollment	Number of Catalogued Courses Type I[1]	Type II[2]	Number of Offered Courses Type I[1]
Kenyon	470	307	238	176
Haverford	475	294	220	244
Hamilton	600	289	160	240
Wesleyan	800	434	293	351
Swarthmore	904	395	343	360
Williams (1955-56)	1050	378	246	340
Amherst	1050	367	305	307
Wellesley	1696	610	475	530
Oberlin	1900	604	419	530
Dartmouth	2900	586	486	512

[1]Each semester course catalogued or offered, regardless of credit-hour value is counted as a Type I course. A year course in the same subject or of the same type throughout the year is counted as two Type I courses. Honors and seminar courses are included. Military Science courses are not included.

[2]A course that deals with a particular subject or area is counted as one Type II course regardless of the number of semesters devoted to the course or the credit-hour value of the course. For example, Science 23-24, offered at Amherst College, would be counted as one Type II course.

to represent their particular areas of inquiry by as many courses as the traffic will bear.

It is clear that certain of these general forces will operate in Amherst because of the fact that some new faculty members would doubtless have to be employed to teach in the sections of the required courses of the curriculum. The core-curriculum courses in their present form could be expanded only by an increase in faculty. If, then, it be considered desirable, or even necessary in order to keep him, for an instructor to have an opportunity to teach at least one course of his own beyond the work done in sections, it might be necessary to introduce some new courses adapted to the particular interests and background of the instructor.

Another contributing factor to the expansion of courses with an increase in the size of a college may be that, as colleges grow larger, it becomes increasingly difficult to impose certain checks and balances upon the growth of a curriculum. In a larger college, it is easier for the various departments to become insulated from each other and, to a certain extent, from a concern about the general curriculum of the college. A curriculum may then expand as a function of what the separate departments of the college think is desirable from their own viewpoints without much interference from the college as a whole and, upon occasion, without much concern about courses offered outside of the department.

But even if it were true that the curriculum would expand, why should this be a matter of special concern? The answer is not so much one of number as of content. The danger is that in the process of pro-

liferation, courses will be added which will lower the quality of the liberal arts education. Some courses may be offered which have no place in a liberal arts curriculum. Some courses may be offered which are far more specialized than could be justified in the light of the broad character of an undergraduate liberal arts education. So many courses may be offered by the various departments that a student may make a selection which leaves him with a collection of excursions instead of a coherent journey.

If the growth in the size of a college were inevitably to produce a proliferation of courses of the sort described above, then the staunch opponent of this type of proliferation would have solid ground to support his opposition to any further expansion of a college. However, it should be possible to deal with this problem in various ways. It might be possible to hold the curricular offerings fairly constant by using the device of having more than one person quite independently teach the same subject, the place of which in the curriculum is not disputed, if the demand for the subject warranted such measures. In any event, it should be possible to establish controls which would make sure that every new course would be one which would make an adequate contribution to a liberal arts education.

It is quite possible that the curriculum at Amherst College might be strengthened by some additional controlled increases in the course offerings. There is value, no doubt, in the adoption by a college of a posture of real concern over increases in the curricular offerings, but if this posture becomes too rigid, it might well hinder the kind of progress that can only be reflected in certain types of additions to the curriculum. Some increase in the size of the faculty, which would doubtless be necessary were Amherst College to make its type of education available to more students, might result in the introduction of new curricular ideas the benefits of which may be greater than the losses which are feared by the opponents of curriculum expansion.

There are certain additional implications which a change in the size of the College might have on the curriculum. It would undoubtedly be more difficult to maintain the core curriculum in its present form. Several of these courses are cooperative courses in which a number of faculty members participate. The difficulties of such cooperation increase with the number of participants at a fearful exponential rate. A class of 350 rather than 250 might necessitate a somewhat different form of organization than the present, although we cannot assume with any assurance that the result would necessarily be worse.

In considering the problem of the curriculum, we found ourselves in agreement with respect to one possible improvement, and that was the idea of dividing the present academic year into trimesters rather than semesters. The present college calendar is open to serious criticism because of the separation of three weeks in January from the rest of its semester by Christmas vacation. If the year were divided into three parts by Christmas vacation and spring vacation, it would permit courses to march steadily forward rather than to have to recover their momentum after a substantial interruption.

If the College should move to the trimester basis, whether to improve the calendar or as part of an expansion program, this would necessarily involve considerable revision of courses and departmental programs. This is a result which we are inclined to welcome. Teachers and colleges can get into ruts and it is healthy to have to review one's activity from time to time. One element in good teaching is enthusiasm and this is likely to be enhanced

by any fresh approach. For the community, any such review is bound to have good results because it is likely to increase the feeling of common purpose and certainly to increase general awareness of the structure and content of the total college's effort. In fact, one might argue for the expansion of the College on the basis that it would be an element of disturbance so far as the curriculum is concerned. In turn, it may well be that the recommendations of the new faculty curriculum committee will establish a pattern which will have definite implications for the problem of size.

On balance, we are inclined to be somewhat worried about the pressures toward proliferation of the curriculum which might result from expansion. The student now has plenty of choices; he can enjoy small classes if he wishes. And the less complicated and ramified the curriculum is, the greater the degree of common experience. However, this problem seems to us to be one which can be kept under control so long as the objectives of the institution are kept clear.

C. The Size of Classes

It is a frequent assumption that small colleges and small classes are synonymous. To some degree, this is true by the simple arithmetic of the situation. A large university may have several thousands in a single class and may not carry undergraduate specialization to the point where there ever will be a class as small as ten. A small college with a class of 250 students with major interests ranging through all the departments is certain to break up into many smaller groups.

The record of class size in Amherst is given in Table V. It appears that fifty per cent of all courses taught at Amherst, exclusive of honors courses, during the period in question, had enrollments of 15 students or less, and that 20 per cent of the courses had enrollments of five or less.

The table does not fully present the picture of what actually happens at Amherst. The honors work which is not included in the tabulation is all done in small groups and often on an individual basis. Furthermore, the individual reading courses which are being tried on an experimental basis during the current year are not included.

More important is the need for correction if one has in mind not enrollment but the size of the group which actually meets with the professor. For example, the statistics show that there were 9 courses in the spring semester of 1958 which had an enrollment of over 125. However, every one of these courses is broken up into sections, some for all and others for at least part of the time. The number of faculty participating in a single such course may be 13 (Humanities), 12 (American Studies), 10 (Science 1-2), or 8 (English). Even Public Speaking, with but a single faculty member, is broken up into small groups. Many other courses either are given jointly by two members of the faculty, or a single member meets it in sections. Thus many of the courses which appear large according to enrollment are not courses which bring up the student-faculty ratio. In fact, in terms of burden on the faculty, the requirements of the cooperative courses may be somewhat greater than proceeding without the complication of group planning. If one looks for courses with only a single professor responsible, there are only 5 in the entire College (including Public Speaking) with an enrollment of more than 75. Two more fall in the size group between 60 and 75.

It is interesting to note that while Amherst College has grown larger,

Table V

Distribution of Enrollments in Amherst Courses
for the Four-Semester Period (1955-57)

Excluding honors courses

Number of students enrolled	Semester courses Number	Per cent	Cumulative per cent
126 plus	35	6.1	100.00
116-125	1	.2	93.9
106-115	7	1.2	93.7
96-105	2	.3	92.5
86-95	9	1.6	92.2
76-85	9	1.6	90.6
66-75	7	1.2	89.0
56-65	18	3.1	87.8
46-65	24	4.2	84.7
36-45	28	4.9	80.5
26-35	48	8.4	75.6
21-25	39	6.8	67.2
16-20	59	10.3	60.4
11-15	69	12.0	50.1
6-10	101	17.6	38.1
1-5	118	20.5	20.5

Excluding both honors and foreign language courses

Number of students enrolled	Semester courses Number	Per cent	Cumulative per cent
126 plus	35	8.3	100.0
116-125	1	.2	91.7
106-115	7	1.7	91.5
96-105	2	.5	89.8
86-95	9	2.1	89.3
76-85	9	2.1	87.2
66-75	7	1.7	85.1
56-65	18	4.3	83.4
46-55	22	5.2	79.1
36-45	25	5.9	73.9
26-35	39	9.3	68.0
21-25	31	7.4	58.7
16-20	43	10.2	51.3
11-15	51	12.1	41.1
6-10	66	15.7	29.0
1-5	56	13.3	13.3

the size of class has tended to grow smaller, as shown in Table VI.

Table VI

Distribution of Enrollments in Amherst Courses on Various Dates

Number of students enrolled	Per cent of total number of courses		
	1920-21	1955-57[a]	1957-58[a]
Over 75	10	11	9
26-75	32	22	21
11-25	27	29	33
10 and under	31	38	37

[a] Excluding honors and reading courses

While the number of faculty and students have each slightly more than doubled since 1920, the number of courses has increased only about 60 per cent. The new distribution by size has reduced the relative importance of the 26 to 75 group and considerably increased the proportion of smaller courses. This record also probably understates the change which has taken place, since it disregards honors courses, each of which would have an enrollment of less than 25, and all of which involve considerable individual work by the student. It also disregards the increased degree by which the courses over 75 are broken up into sections. The record would seem to be that there has been a substantial tendency in Amherst/to increase the contact in small classes between faculty and student despite the increase in the overall size of the College.

This material raises a number of questions, many of which are not related to the problem of the size of the College. However, if the limiting factor in expansion is the difficulty in adding to the faculty (discussed later), then one must consider as part of the problem of expansion whether or not the present pattern of utilization of faculty time and energy as demonstrated in class size is open to modofication. It seems clear that Amherst has gone very far in the direction of eliminating the large class group. In some cases, this clearly results in permitting the most fruitful kind of discussion. In others, we suspect that the classes continue to take the lecture form regardless of their reduced size.

We are inclined to think that Amherst can release faculty time and energy as a basis for handling a larger enrollment in at least three ways which bear upon the size of class. We suspect that we have gone too far in deprecating the large lecture course. Clearly a student's schedule largely made up of such courses might fail to stimulate him. But among his four or more courses, there would seem to be room for rather more in the way of lectures than he admittedly gets at present, so long as he also has small discussion groups to provide that form of stimulation. Perhaps we can usefully provide some areas among his courses where a student can benefit from exposure without always having to participate actively in oral discussion.

Secondly, at the other extreme, are more than one-fifth of the courses with five or less students. To this, in terms of individual

student direction, should be added a considerable part of the honors work which often is individual. There is some question as to whether or not Amherst should devote so much of the faculty's energy to maintaining all these courses for a small fraction of the student body. One-fifth of all courses given at Amherst occupy perhaps 2 per cent of the student body's time in classes. We would merely suggest that these courses be reviewed from time to time in terms of their necessity. Many of them are delights to the professor and others are necessary to provide the possibility of majoring in all departments. However, in a world of scarce resources, they must be recognized as involving very high costs.

Thirdly, are some fairly small courses which could easily absorb added students without resulting in any educational loss. Indeed, increased enrollments might be educationally advantageous.

All these ideas must be taken into account by the new curriculum committee. In many cases, changes would be possible only as changes take place in the faculty. However, our own thinking on the subject suggests to us that if it seems desirable, Amherst could handle a larger number of students without a proportional increase in faculty. We feel that by careful consideration, the student-faculty ratio could be increased without any appreciable loss in the quality of the liberal arts education given at Amherst.

D. Social Relations

Beyond the question of the size of class, the small college is often said to provide special values in terms of social contacts. This presumably appears in the student's more intimate relations with his fellow students and with the faculty outside of the classroom. This argument for the small college is a frequent one, although there are those who take the position that these matters are irrelevant to questions of college policy. They claim that the students will form such groups as they desire under any circumstances and the faculty's responsibility is in the classroom and nowhere else; the faculty should not be expected to fraternize with the student body.

While we do not feel that these relationships can or should be forced, we do feel that a congenial environment for social contacts has its values. It is desirable that students should find it easy to form intimate friendships with their fellow-students. It is not clear, however, that this possibility is very closely associated with the size of a college. It is probably more closely associated with the extent to which the student body lives together and has a common experience. However, for the unusual individual, his chance of finding congenial companions might be somewhat greater in a larger than in a smaller student body for the simple reason that a larger college is likely to contain within its student body a wider range of potential friendships. Furthermore, groups may not be as formalized and shifts in allegiance are not so conspicuous.

The argument on the other side is that in a small college some effort is usually made by the student to know the members of one's class and the faculty by name. It is a common assumption for one's social behavior that everybody knows everyone else. This in itself is not a matter of particular significance, but it does facilitate the development of greater intimacy if the opportunity presents itself. And it provides a bond which has some strength in future years. Furthermore, one is forced into contact with a wider variety of individual types.

This of course depends basically upon the extent to which the admissions office has provided a "cross-section." It must work against the greater tendency in the small community to enforce conformity. We are inclined to think that Amherst is large enough to provide the necessary variety - at least it seems to be able to provide enough vari[illegible] competence to carry on many types of student activity at a respectable [illegible]vel. This opportunity value would not be appreciably changed if Am[illegible]rst were larger.

The contention that a college should remain sm[illegible]ll in order to insure the possibilities of a closely-knit undergraduate student body is very difficult to evaluate. For one thing, it is not entirely clear precisely what is meant by a "closely-knit student body." One has a few close friends, a wide circle of acquaintances, and a still wider circle of classmates. This is likely to happen in a small or a large college. The most that we can say on this point we have already said in connection with the notions of community and fragmentation. In a sense, the problem is that of [illegible] central core of experience against a variety of distractions. Presumably, there is a value in the sense of "belonging" and this is enhanced by active participation and substantial identification. The differences are apparent in the extreme cases - the small college as against the commuter university. We doubt if great differences would appear in Amherst in this respect, even if it should increase in size substantially.

Equal emphasis is often placed on the greater possibility in the small college of intimacy between faculty and students outside the classroom. An appraisal of this argument requires, first of all, an analysis of what is implied by the term "good student-faculty relations." Student-faculty relations are presumably judged to be "good" when the following conditions exist:

a) Students are encouraged to visit faculty members in their homes and actually do so with some frequency.

b) It is relatively easy for students to make contacts with faculty members in their office, homes, or elsewhere on the campus for a discussion of both academic and personal matters.

c) Students generally perceive faculty members as being genuinely interested in both their academic and personal development.

d) The general atmosphere in which student-faculty relations occur is one of mutual respect and not one of either concealed or overt hostility.

e) Both student and faculty norms recognize the desirability and appropriateness of close student-faculty relationships.

Some evidence on the extent to which at least some of the criteria of good student-faculty relationships are being satisfied in a college of Amherst's present size is available in the answers which about 85 per cent of the members of the class of 1959 gave near the end of their sophomore year to six questions related to the area of student-faculty relations. Tables VII and VIII contain a summary of these data but they must be interpreted with care. It should be noted that they reflect only what transpired during the sophomore year. Probably a similar set of data for a later college year would show a higher rate of student-faculty interaction. In the sophomore year, the

student has not yet made much progress in specialization. Certainly his faculty contacts are likely to be much greater in the senior year.

Table VII
Responses Given by Students of the Class of 1959 to Six Questions Pertaining to Contacts With the Faculty During the Sophomore Year

Question Number:

1. How many times during the year have you voluntarily visited a faculty member on some matter pertaining to courses?

2. How many times during the year have you visited a faculty member at his office for a chat about some academic matter of interest to you?

3. How many times during the year have you consulted with a faculty person about a personal matter of some importance to you?

4. How many times during the past year have you been a guest at a faculty member's home?

5. How many times during the past year have you personally acted as a host to a faculty member at your fraternity?

6. How many times during the past year have you had occasion for an informal chat with a faculty member(s) under spontaneous circumstances?

(In answering the above questions the students were asked to exclude Deans, Chaplains, Administration Officials, and the College Counselor.)

Question Number												
1		2		3		4		5		6		
A	B	A	B	A	B	A	B	A	B	A	B
12	6.7	6	4.6	6	1.3	6	1.3	6	1.0	12	18.2
10-11	7.5	5	6.4	5	1.8	5	.9	5	.9	10-11	7.5
8-9	8.0	4	5.1	4	2.7	4	3.1	4	.5	8-9	2.6
6-7	5.8	3	7.4	3	5.8	3	4.9	3	.9	6-7	4.8
4-5	20.0	2	24.0	2	12.9	2	13.9	2	6.4	4-5	13.9
2-3	29.0	1	15.2	1	19.6	1	31.7	1	14.7	2-3	33.3
0-1	23.0	0	37.3	0	56.4	0	44.2	0	76.5	0-1	19.8

Columns A = Number of times

Columns B = Per cent of students reporting a given number of times

Table VIII

Total Number of Non-class, Non-administrative Contacts which Students of the Class of 1959 Reported Having Made With the Faculty During Their Sophomore Year (derived from all of the responses given to the six questions listed in Table VII)

Total number of times	Per cent of students
Over 40	7.7
35-39	2.1
30-34	4.3
25-29	3.0
20-24	7.2
15-19	11.1
10-14	19.6
5-9	28.1
0-4	17.0

Moreover, in the absence of a corresponding set of responses from students who are being educated in a larger college, it is impossible to draw any definitive conclusions from these data concerning the question of whether a small college actually fosters better student-faculty relations than does a large college. Nevertheless, the data do show that there is a considerable amount of student-faculty interaction actually occurring at Amherst.

With only a limited amount of relevant data at our disposal, we are faced with the necessity of being somewhat intuitive when attempts are made to determine whether a college of somewhat more than 1000 students can raise as an objection to an increase in enrollment, that to do so would mean the end of good student-faculty relations. It is quite likely that this whole matter is less affected by size than by other considerations. The commuter college is at a great disadvantage because of the dispersal of its members over great distances. The small town college provides accessibility, at least. This it would still do even if it were twice as large. Even more important is the social pattern of the community. Students enter college with a variety of predispositions as to whether faculty members are to be treated as friends, fixtures, or foes. To a large degree, the new student settles into whatever attitude seems to be the prevailing one.

The importance of the social pattern suggests one real advantage, at least in so far as student-faculty relations are concerned, in not allowing Amherst College to become very much larger. This lies in the fact that it is much easier in a small than in a large college to emphasize the importance of good student-faculty relations and the likelihood, therefore, is greater that the collective conscience of the members of a small college community will be more easily disturbed when this dimension of college life is neglected than would be the case in a large college. However, there is not essential reason as to why these values, such as they are, should be lost in an expanded college.

E. The Ease of Experimentation

The small college is much more favorably situated than the larger

college to experiment with bold educational innovations. Some of the aspects of our present curriculum might never have become realities had Amherst College been twice as large when fundamental changes in the curriculum were being discussed more than ten years ago. For example, there might have been much more resistance to the idea of requiring every student to take a course such as Science 1-2 had the entering class numbered 500 instead of 250. The small college has much more flexibility for major change, though it could be argued that smaller adjustments seem more important in a small community, and may be more difficult. Amherst has gone through a self-evaluation process from time to time, usually resulting in important changes in its program and methods. This capacity, we should not wish to lose.

In the course of its considerations, the Committee was greatly impressed by the wide degree of variety and experimentation going on at the moment in the academic world. It seems probable that the search for better methods will increase rather than decrease in the next decade. We are concerned by the fact that the extent to which Amherst College is able under present arrangements to benefit from all this ferment appears to be largely fortuitous. Responsibility for the curriculum and teaching processes belongs to the Faculty and is delegated in the first instance to the Committee on Educational Policy. This committee must work hard to deal with the operational problems which emerge from time to time from the present scheme of things. To be sure, individuals do throw in suggestions which eventually become established practice; but nowhere is there any established responsibility within the Faculty for improvement, except as each member tries to improve his own teaching methods. Orderly attention to these matters is achieved occasionally by the use of <u>ad hoc</u> committees, such as that on the curriculum recently established.

It has occurred to us that this situation might be decidedly improved. The Committee on Educational Policy should be the center for the collection of ideas and information about new developments and experiments elsewhere. The Committee might be strengthened in two ways. First, the procedure should be encouraged for members of the faculty to bring to the attention of the Committee on Educational Policy whatever interesting ideas, successes, or failures they may hear about in their contacts with other institutions. Second, at least one member of the Committee on Educational Policy (presumably though not necessarily the chairman) should be freed in part or entirely from his academic duties and be encouraged (with an expense account) to visit other institutions. This responsibility might be rotated each year. No matter what may be decided as to the future size of the College, it certainly should not be concluded that there is no room for improvement.

V. THE LIMITATIONS IMPOSED BY RESOURCES

The previous discussion of the values of the small college leads us to the conclusion that the character of Amherst is defined more by its location in a small community, its concentration on a liberal arts program, and its traditional atmosphere than by any particular size of student body. We find no compelling arguments, in terms of educational values, for enlarging the College. On the other hand, we are not convinced that there need be any noticeable deterioration in academic quality as the result of an expanded student body.

These conclusions have assumed that additional resources will be available as may be required if a program of expansion is adopted. This is a tremendous assumption. If the number of students were to be increased (and here there is clearly no problem of scarcity), this would seem to have definite implications for physical plant and facilities and for the faculty. In both cases, it would mean either an increase in size or a change in the pattern of their utilization.

A. Physical Plant and Facilities

The problem of physical facilities is already with us. Amherst is a college with a present concept of size and capacity in being for 965 students, but with 1,050 in residence. It is clear that we must either push back to 965 or expand certain of our facilities even to stay satisfactorily at the present size. Students eat in crowded dining halls. In many of the dormitories and fraternity houses, there are too many students for comfortable living and separate working. There is a lack of adequate study space. Classrooms of proper sizes are not as numerous as they should be. There is a lack of adequate faculty office space. In some departments, especially in the natural sciences, physical facilities impose a very definite limit upon the number of students that may be permitted to engage in honors work. All of this would seem to indicate that there is not a good fit between the present size of the College and existing physical facilities. We are particularly disturbed by the evidence of overcrowding which has clear repercussions upon the degree to which an undergraduate can lead a private life, including the opportunity to study. If nothing can be done to correct this situation, then it seems rather absurd to give much thought to a possible expansion of the College. The return to 965 would then be the only sensible program.

Quite obviously, if such physical expansion is not possible because of a lack of financial resources, then any further thought about expansion that would involve having more students on campus at any one time would be pointless. The only question worth exploring then would be whether or not the existing physical facilities could be used for a longer period of time during the year and thereby increase the number of students to whom an Amherst type of education could be made available without added capital cost.

We started our Committee's discussions with the notion that one of the uncomfortable brambles which we had to grasp was the under-utilization of plant as a result of the long summer vacation. One of the possible programs discussed later in this report involves more nearly year-round operation. However, we have come to the conclusion that, within the area of increase which we feel is feasible for other reasons, this factor need not be given much weight, at least by us. Various possibilities should be explored for using the campus in the summer, but the argument for full utilization in itself is not a convincing reason for changing the college year.

The businessman's logic in connection with his own plant is not fully applicable in the college case. Like the college, his overhead charges are the same whether his plant is active or idle. Therefore it would seem to be an obvious gain to be active and spread these costs over a greater period of utilization. However, no businessman would use this argument unless his anticipated return will exceed his direct costs. Amherst College, however, finances much of its costs from endowment income which operates on the reverse basis - that twelve months of endowment earnings are applied to nine months of education. Similarly gifts which are used for current expenditures are usually on an annual basis and could not be expected to increase as the result of a longer academic year. To be sure, tuition payments would increase, but it is open to question as to whether income from extending the academic year through the summer could pay for the added costs which would be incurred. There might actually be a deficit.

It seems to us that this problem should not be considered in terms of what a longer academic year would do to the process of education, a subject which is discussed later in the report. This is by no means to discard the idea of utilizing the plant in the summer. It relates merely to the simple proposition of using it in connection with Amherst's prime purpose of providing an undergraduate liberal arts education.

We are by no means satisfied with our consideration of the problem of physical plant and facilities. We recognize that it will establish some kind of limit on Amherst's size, but our hope is that size will be considered first in terms of national interest and the quality of education offered by Amherst, and that plant and facilities will then somehow be obtained to meet the requirements. We recognize that there is some point where the new requirements would be so large that it would virtually mean rebuilding the College. On the other hand, one of the arguments for increasing the College somewhat, perhaps to 1200 or so, would be that this might make it possible to achieve a better balance because sufficient increases would be required to justify efficiently-sized additions. We feel that this whole area will need much more careful exploration than we have given it. We have assumed, perhaps unrealistically, that we could consider the size of the College without examining ways and means. In any event, unless the College shrinks in size, and we see little argument for that in educational terms, some additions to the present plant could make Amherst a considerably better college.

We would argue, therefore, that a careful study be made of the capacity of the various existing facilities, and estimates of necessary additions to provide for various sizes of student body. We suspect that some expansion may be possible without tremendous expenditures, but that there is some point where all the present facilities would become too small, and then the additions required to maintain present standards would be exceedingly costly. Obviously, such an analysis is an essential prerequisite to drawing any final conclusions concerning the future size of the College.

One type of suggestion, aimed perhaps to make a virtue out of a necessity, is that any physical addition which is to be made might be utilized to form a semi-separate freshman or senior honors campus. Already, there seems to have been some benefit from the effort to create a common experience for freshmen by their common curriculum, and separate dormitories. Might there not be further benefit from making them even more a separate group? The other suggestion of a somewhat independent senior honors campus would be based on the idea that candidates for

honors would appreciate a partial escape from the complications of campus life, and that a slight geographical detachment might be helpful.

Neither of these ideas had any appeal to us, since our worry is to prevent fragmentation rather than to encourage it. Particularly we are opposed to anything which would magnify the often arbitrary line between honors candidates and nonhonors men. These suggestions, which may have merit on other grounds, do not seem to us to have any important bearing upon the size of the student body, except to open the door to the notion, which we reject, that a large college can achieve the equivalent of a small college by the process of subdivision into a number of student bodies.

B. Faculty

We have come to the conclusion that an even more difficult limitation on expansion for Amherst arises because of the predictable shortage of competent faculty members. Already, qualified teachers are becoming a scarcer and scarcer national resource. The last two years have seen a rapid acceleration in the slow postwar rise in faculty salaries and this will undoubtedly attract some added numbers into the profession, although in some fields, the competing attractions of nonacademic employment have risen even more. At any rate, this new group will be entering at the instructor level, and there is little which can be done quickly to increase the number in the upper grades. In this case also, there is a considerable flow away from the academic into the world of higher salaries and better research facilities.

If one uses usual academic standards, there already are definite signs of deterioration. The percentage of college and university teachers with doctor's degrees is falling rapidly. The U. S. Office of Education estimates that for the five years 1955-60, there will be about 20,000 of 35,000 with doctor's degrees conferred who will be available to meet a demand for 90,000 college teachers. In 1965-70, it estimates that 35,000 of 60,000 with doctor's degrees conferred will be available against a demand for 235,000 college teachers.a/

Under these conditions, we do not feel that Amherst should contemplate a program which would require any general expansion of its faculty, except at the lowest ranks. Any expansion in the higher ranks during the next decade or two will involve the withholding of teaching resources from other institutions where increases in student enrollment are more likely to be overwhelming. On the other hand, increased plant and physical facilities at Amherst would not be a charge against education elsewhere.

Amherst has a large faculty relative to the number of students, and a distinguished one. In recent years, it has been increasing the number of full professors, as Table IX shows.

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a/ AAUP Bulletin, March, 1958, p. 268.

Table IX

Faculty Members by Rank, 1951-52 to 1957-58[a/]

Rank	1951-52	1953-54	1955-56	1957-58
	Number			
Professor	41	43	47	49
Associate Professor	16	15	18	16
Assistant Professor	18	15	16	31
Instructor	28	33	37	27
Total Faculty	103	106	118	123
Student Enrollment	1,047	1,047	1,055	1,044

a/ Including only teaching faculty and excluding those on visiting appointments

We are sure that an essential for quality of education is quality of faculty. And unless other changes are made, any increase in the size of Amherst will necessitate an increase in the number of teachers. Considering only the freshman year, since most of the courses are subdivided into sections, added students would mean added sections and added faculty to meet them. In later years, there would be some absorption into classes which are small enough to carry added students or large enough so that it would not matter. But there still would remain some congested areas where added faculty time would be required. The pressure on faculty would reassert itself most heavily in the senior year, where it must be assumed that a larger number of students would result in a larger number of candidates for honors. While this is probably one of the most valuable elements in the Amherst curriculum, it is also a heavy consumer of faculty time and energy. It is perhaps worthy of note that a case can be made for the argument that the large institution can use its faculty more efficiently chiefly because there are enough students so that each faculty member can be used to his maximum. In the smaller college, there are sure to be faculty members who could teach more students, but their particular fields do not attract large enough groups.

There are some impressive arguments as to why some increase in the faculty might be desirable in itself. A larger faculty would make possible an increased amount of stimulation from a more diversified group of teachers. Furthermore, in these days of increasing knowledge and specialization, it may take a larger group to cover a field satisfactorily. On the other hand, the very smallness of the faculty assures a degree of interaction and cooperation which is of great value in preserving the breadth of the liberal arts approach.

It is exceedingly difficult to judge how possible changes in the size of Amherst would affect the ability of the College to attract and to hold a faculty. Undoubtedly, some present faculty members are at Amherst because it is a small college, but an increase in size which did not change the character of Amherst would probably not disturb many of them. Potentially more disturbing would be any program which extended the College calendar or increased the work-load. In many cases where faculty members are actively engaged in research, the present demands on their

time by students is apparently close to the limit of toleration.

The bitter reality has to be faced that there is certain to be a shortage of teachers for some time to come. Under these conditions, an inefficient use of teaching resources in any institution would be indefensible, even if it could be afforded financially. We are therefore forced to the conclusion that one of the most important problems, if not the critical one, is whether or not the faculty, with some possible expansion at the instructor level, can provide more education without any appreciable loss in the quality of education given the student.

It seems clear therefore that any acceptable plan of expansion for Amherst may have to incorporate some new ideas concerning the responsibility of the teacher and how his time can be used more profitably.

We have already noted that the character of the curriculum is important in the demands which it puts upon the faculty. We suggested that the present size distribution of classes is by no means an efficient allocation, though conceivably it may be the best possible arrangement to match off teaching interest and student elections. However, there is one other aspect of academic life at Amherst which might be reconsidered. Looking at the present curriculum, we are particularly concerned with the way in which the student's intellectual life tends to be defined in terms of specific tasks. So much work is to be done by such a moment in time, no more and no less, and the appropriate amount of progress toward the bachelor's degree will have been made. We hope that the new study of the curriculum will seek ways to enforce the ideas that learning is unlimited, that the student should accept some of the responsibility, and that college is an opportunity rather than an assignment.

It seems to us that this line of thinking has real significance for our problem. If, as we have already said, an important limit on expansion is faculty availability, then any increase in student participation and responsibility may serve to release some faculty time and energy for other uses. This is not easy to achieve. A reading course designed to reduce class hours may result in increased demands upon the faculty, particularly if it operates in terms of individual students. However, we do feel that the present student, particularly in the early years, is too busy with his assignments, quizzes, and frequent 50-minute appearance in class. More freedom for him might mean more freedom for the faculty. Even if not, it still might be a good thing.

A simple increase in the size of Amherst, following the pattern of the past, would be achieved merely by admitting more freshmen. No changes are required in the calendar. The only changes in the curriculum would be those resulting from changes in the faculty. There would need to be additions to the physical facilities of the College and an increase in the faculty. But these last two requirements raise major difficulties. Therefore, we turn to consider various proposals which might affect the need for expanding either facilities or faculty or both.

VI. THE THREE-YEAR PROPOSAL

One way of enlarging the College is for it to lengthen the college year so that a student could cover the ground in three years which now requires four. The present academic year is approximately 30 weeks in length[a/] so 120 weeks would represent a student's academic life. If he remained in college for 40 weeks for each of three years, this would produce a rough equivalent in terms of exposure to the academic. This would not be a speed-up in the usual labor sense. Presumably, the pace in any given week would not be altered, but more weeks would be used for academic work in each year.

There are various ways in which the longer year might be fitted into the calendar. If, for example, the year were to be broken into three terms, if each term were to be thirteen weeks in length followed by an examination period, and if there were a ten-day break between terms, the College might open one week earlier than at present (in 1957-58, that would mean September 12) and operate through all of June and most of July, ending the final examination period on July 26. The summer vacation would then be about seven weeks long. To consider total vacation time, one would need to add the three weeks of short vacations between the first and second and the second and third terms.

Inasmuch as there would be only three college classes in residence rather than four, it would be possible to increase the size of each entering class to a figure such as 365 without increasing the number of students on campus beyond the 1050 we have at present. This would mean, in effect, that we could graduate 365 students less attrition each year rather than some 240 as at present.

The leading aspect of the three-year plan which has impressed its supporters is that it would shorten the number of years during which the student is "preparing for life." With somewhat more than one-half the Amherst graduates going on to graduate or professional school and with military service also claiming additional time, anywhere from two to five years are required after graduation before the student "comes out." The possibility of completing one's work at the college level in a shorter period has considerable appeal.

We are inclined to expect that a higher and higher proportion of Amherst graduates will go on to graduate school. Our expanding knowledge in all fields is making competence and creativity increasingly difficult even in a specialized area. The truly liberally educated individual with the understanding and perception to attack broad complicated problems is becoming increasingly valuable and rare. For that part of the population with the intellectual potential, the need is for more education rather than less. This raises the challenge either of accomplishing the same amount in less time or of covering more ground in a given amount of time. Until now, Amherst has followed the latter course. There can be no question but that the undergraduate today performs more academic tasks than ever before. We do not question this trend. But, recognizing the growing complexity of knowledge which must be absorbed by the specialist, we have some sympathy with the three-year proposal as a further step

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a/ Actually, the recent schedule has been 29 weeks and 1 day of classes exclusive of examination periods, and 31 weeks and 1 day, if one includes in full the two examination periods. The average student does not have to remain in Amherst until the end of each examination period, so 30 weeks is perhaps a fair estimate, plus a possible day or two.

in adjusting educational practice to the modern world.

Our first question relates to what effect it would have upon the quality of the liberal arts education itself. We have been unable to find any clear evidence concerning the value or harm of a more continuous academic exposure upon the student. For certain subjects, languages for example, long vacations usually cause considerable back-sliding and study without long breaks would be much more effective. On the other hand, other subjects, philosophy for example, may be best learned if there are considerable periods of free contemplation. Having in mind the vacation practices in adult life, it seems difficult to conclude that vacation intervals totaling ten weeks per year are not enough to permit recuperation from the academic strain, if any.

The process of maturing is more than one of academic progress, and this is brought to the defense of the summer vacation. It may be enhanced by a change of place and occupation, and such change may serve as an offset to the trend toward collegiate conformity. Vacations from college are often busy periods. The historical explanation often given for the long summer vacation is that it made it possible for students to go home and help on the farm. Student vacations today are put to quite different uses. They may be learning periods, important to individual development. Experience as a common laborer, travel to some distant spot, or the development of skill in sailing boats, all have their important values. On the other hand, they may be periods when the budding interest in some subject dies on the vine, and the intellect becomes distracted and dulled. In some cases, the summer carries a sort of vicious multiplier, in that too much time is spent in dreaming before vacation of what lies ahead and later in gloating over the happy conquests of the summer which lie behind.

Fortunately, we can be somewhat more specific in this area, as the result of a study of the way one sample of Amherst students used their summer vacation. This sample consisted of 181 students of the class of 1957 who reported what they did and how much money they earned during the summer of 1956. A very rough analysis of the type of work engaged in is presented in Table X.

There is probably little doubt that for some of the students at least, the experiences they had during the summer made a significant contribution to their development and in a way quite different from the influences that may be exerted in a college environment. Clearly, half of them had positions which required no particular skill and offered no intellectual reward, and the summer camp work, while pleasant enough, was probably not very demanding. Furthermore, this tabulation covers only three-fourths of the class, and it is likely that the unreported quarter had an even less profitable summer. This record can hardly be taken as a measure of the full summer's experience. Often, some traveling was involved, and there may have been important values other than those related to the occupation. Nevertheless, the record suggests that oftentimes the summer is not as productive of growth and development as it might be.

Another important consideration is that the student is often able to earn a considerable sum during the summer period. Since it is assumed that his total tuition will remain the same under a three as a four-year plan, the loss of summer earnings and the shorter interval may create a real problem for some families. However, it is difficult to

Table X

Classification of Activities Engaged in During the Summer of 1956 by 181 Members of the Class of 1957

Type of work	Number of students
1. General labor, odd jobs, construction, machine, hospital, restaurant, and clerical work	91
2. Summer camp work, lifeguard, tennis and swimming instruction, etc.	27
3. Jobs in business, industry, and banking	21
4. Research and technical assistants	7
5. Training programs	6
6. Sales	6
7. Merrill Center for Economics	4
8. Religious work	3
9. Publicity work	2
10. Staff of U. S. Senator	2
11. Surveying	2
12. Tutoring	1
13. Work in Foreign Countries	1
14. Dramatic Arts	1
15. Interne for Bureau of Indian Affairs	1
16. Miscellaneous	6
	181

take the position that a student should be permitted to go to college for a period of four years, rather than three, in order that he might be able to pay for his education over a longer period of time. It is possible, of course, that if a student is deprived of the money that may be earned during the summer, some plans may have to be instituted to compensate for this loss, such as more scholarship or a plan of loans to be repaid at a later date. It is not entirely unreasonable to suggest that parents who have not planned ahead may have to borrow money for the education of their children as they now do for the procurement of automobiles.

It may be important to note that, although a number of the larger universities operate on the quarter system and students have the option to accelerate, no large number utilizes the opportunity at the present time.

The summer quarter tends to be utilized by teachers wishing to increase their academic credits and by students who are required to make up for some deficiency during the regular year. The absence of a sense of time-pressure on students at present to complete their academic work appears in the number of students entering Amherst under the MIT plan, who finally decide not to take advantage of the possibility of saving one year provided by the plan. Certainly at present, for the large majority of students, there seems to be little desire to reduce "the happiest years of my life."

As far as the attitudes of students now at Amherst toward a three-year plan of education are concerned, one would expect that they would be preponderantly negative. This was borne out by the responses which the members of the class of 1959 gave at the end of their sophomore year to the following question: "Assuming you had your choice between two schools of Amherst's caliber, to what extent would you have been attracted to the one offering a program having eleven weeks of vacation each year with a B.A. granted by August of the third year? Comment." The responses are summarized in Table XI. The comments made by students were highly interesting. Some misunderstood the idea as increasing the pace during the period in residence. The

Table XII

Attitudes of the Students in the Class of 1959 Toward a Three-Year and Four-Year College Program

In favor of	Number	Per cent
Four years (definite)	156	66.0
Four years (tentative)	10	4.2
Three years (definite)	57	24.0
Three years (tentative)	9	3.7
Doubtful	5	2.1
	237	100.0

reasons given are too diversified for any simple type of classification. A few samples, however, are worth reporting.

1. Comments made by some of the students favoring a four-year plan:
   a) I need money earned on vacations. I like longer absence from academic stresses.

   b) Longer summer vacation gives one an opportunity to work or do things that should be part of one's education.

   c) Positions held during summer have been just as educational as formal academic experience, if not more so.

   d) The total experience at Amherst is too valuable to complete in three years. There would be too much of an emphasis on "hurry-up"; no time to stop and consider and to participate fully. Amherst means more to me than a place to come for gaining a degree, although this is basic.

   e) I don't think I could stand a more concentrated academic program than the one I have found under the current Amherst curriculum.

f) The monotony of classes must somehow be broken with a long vacation.

g) There is considerable pressure on students and vacations are necessary. In addition, college is a good place to spend one's youth; why be in a hurry? I'm not anxious to make money. Many traditions, honors, activities, and sports would be missing at a three-year school.

h) Three-year plan separates the student from his family too quickly after preparatory school.

2. Comments made by students favoring a three-year plan:

a) Long summers are superfluous if you have enough money for school. Loans could be provided for others. Many here plan to go to graduate school. This would enable them to be productive sooner. Of all the possible changes at Amherst, this is the one I favor most.

b) The faster the education, the better.

c) Plan would only be possible if the work load were maintained at its present level or even reduced some. Because of the longer school year, there should be longer reading periods with a de-emphasis upon lectures as a method of teaching.

d) I'm in favor of the idea, except I'm not sure I'm capable of such a strenuous program. However, I suppose I had getter get used to it pretty quickly if I plan to go out and work.

e) Work and college life would be more concentrated; thus more helpful.

f) Three years of exposure to the various disciplines is sufficient.

g) Summer vacation is just too long. It would be better to concentrate a little more on studies during the year. There is nothing sacred about the present system, and I think it will eventually have to be changed.

h) I would save one year of school, replacing senior year with graduate school.

These opinions of students are interesting if not conclusive. Undoubtedly, if Amherst should go on a three-year basis, there would be some shift in the character of applications. We would be much more apt to get applications from boys already determined to go on to professional school, to whom any shortening of the academic span would be attractive.

As to physical plant and equipment, it might seem that this plan was particularly designed for its more efficient use. There would be an increase in the number of students entering or graduating over four years of about one-third, but there would be no increase in the number on the campus at any period of time. However, the problem is not so simple as

that. The entering class of 365 would produce numbers in the core courses in the first four or five terms which would be much greater than any course enrollments at present. Classroom space and laboratory space would both need additions, unless there were offsetting changes in the curriculum. Furthermore, the operation of the College during July might require some utilization of air conditioning or other climatic adaptions.

From the point of view of the faculty, the number of students in college at any given moment of time would be the same as at present. The students would be in Amherst more weeks in each year, but we assume that a faculty member would be expected to carry the same teaching hours as at present. This would mean that he would teach 9 terms in every 12, - i.e., two terms each year with a third term every fourth year.

The rearrangement of schedule would cause at least temporary difficulties. Many of the faculty have summer habits and habitats which might not serve the purpose at other seasons of the year. However, even assuming a happy distribution, an entering class of 365 would necessitate an increase in faculty. The pressure would be on the core and elementary courses where added sections would be necessary, and on the direction of honors work, which presumably would increase proportionally. The fact that the curriculum would be rearranged into nine terms instead of eight semesters would probably mean that a number of courses would be given once every three terms instead of every other semester, thus either permitting some added courses to be offered, or an actual cutting down of the number offered in any single term.

But even if the size-of-faculty problem could be met, there would be some loss to the community in the fact that only two-thirds of the faculty would be on the job at any one moment. At the end of each term, one-third would leave and one-third would return. Obviously, some of the faculty sense of community would be lost. And decisions now made by the whole faculty would have to be taken by the faculty members in residence at the time. Possibly, some would stay in Amherst, in which case there would be no escape for them from students and other faculty members. In fact, those who remained in Amherst during their off-term might discover that a vacation is without profit in his own community. Finally, a special problem is created with respect to honors work, which so often depends upon a particular faculty member for its direction. However, this problem arises now in connection with leaves of absence and sabbatical leaves without appearing to cause any great difficulty. The honors subjects selected are seldom so specialized that supervision cannot be given by several different faculty members.

It is somewhat difficult to consider all the implications for the faculty, since a shift to nine terms would undoubtedly lead to considerable curriculum revision. It would permit somewhat more utilization of the prerequisite or ladder structure of courses within a department. Since terms would be two weeks shorter than present semesters, all courses would have to be shortened somewhat, or lengthened to cover two terms. It would eliminate all freshman athletics and students would be immediately available to play on varsity teams. And some term, either "sophomore" or "junior," would have to be dropped, or perhaps both might be replaced by a new term.

We had a brief interlude of hopefulness when we considered the possibility of permitting the student to choose whether he would take his nine terms in three years, or spread them over four. This seemed to solve

many of our difficulties. It would permit those who wished to accelerate to do so, but would not require it of all. We soon found that, after three terms, the students became hopelessly out of phase. Too many courses would have to be duplicated as students came along at different times. The structuring of departmental offerings by a ladder of prerequisites becomes quite impossible. Student activities and group activities would be exceedingly difficult to handle. And the College itself would undoubtedly have to operate on a more or less skeleton basis during the term when part of the student body would be away. While it seems desirable to make alternative rates of progress available to the student, such an arrangement seems to be feasible only in a much larger institution.

We are not all convinced that the three-year possibility should be completely discarded. We might have found it easier to agree on a four-year college with shorter summer vacations with the opportunity to cover even more ground than at present. But the three-year proposal is worthy of serious consideration. We have suggested various difficulties, but we cannot help but feel that the long vacation frequently detracts from the whole educational enterprise. At least, it may be possible to break into its inviolability along lines suggested in the section on reading periods.

VII. STAGGERED PLANS

It is possible to enroll more students and use the academic plant for a larger part of the year while still holding to the four-year program with long vacations by various schedules whereby part of the student body is away on vacation each semester or term. There are many different patterns possible for working out such an arrangement, but they all arrive at the same basic design, that the College runs for three trimesters or four quarters, and approximately one-fourth of the student body would be away on vacation each trimester or quarter.

One way of reaching this result is to break each class up into three groups. Suppose the College admitted a fixed number each term. Each group would take its vacation after two trimesters or three quarters and repeat its vacation at the same time each year. A variant would be to admit two-thirds of a class the first term, half of whom would take a vacation in the second term when the remaining third would enter. After this somewhat different entrance pattern, the class would continue with a revolving one-third away each trimester.

We were not happy about this pattern because of the constant change in the student body. No class would ever be in Amherst all together. This would make frequent repetition of courses necessary. Student activities would be difficult to organize. Since the faculty also would presumably have similar off-periods, the sense of community would be greatly weakened. Furthermore, this schedule would mean that certain students were always in Amherst in the summer period, and that one was regarding as equivalent, vacation periods at different times in the year.

Some of these difficulties are removed, if the schedule deals with a whole class as a unit, but varies its time of vacation. Thus, on a trimester schedule, a class might remain in college for three terms, have the fourth and eighth as vacation, and would graduate at the end of the eleventh term. In schedule form, this would look like this:

	Trimester		
Year	I	II	III
I	Term 1	Term 2	Term 3
II	Vacation	Term 4	Term 5
III	Term 6	Vacation	Term 7
IV	Term 8	Term 9	Graduated

In this schedule, each trimester is assumed to be the same length as those described in the three-year program. One can alter the timing of the vacation terms, but there must be one in each column. There would, of course, still be the seven-week summer vacation as described in the three-year program, but added vacation time would come at varying times of the year. In fact, the new schedule can be described as taking part of the summer vacation and placing it in different parts of the year. A similar sort of schedule can be worked out if one prefers the quarter system.

The above schedule has the advantage of keeping each college class together. All are admitted at the same time. It therefore does not create such difficult curricular or student activities problems and would do much less damage via fragmentation. However, it does one unfortunate thing, in that it provides too many vacations. The student would start with an

excellent stretch of three terms, followed by a long vacation since his first term off will follow the summer. After that, he will either have a vacation after two terms, or in the case of Term 7, after only the one term. There is no way of preventing this, unless one decides to keep the College going steadily all year round and eliminate the summer vacation entirely.

The relation of these staggered plans to size should be obvious. In the schedule given above, one class is away from the College in any term. Therefore, each entering class could be one-third larger than on the present schedule without increasing the number of students in Amherst at any given period of time.

These plans raise many of the same problems from the faculty point of view as those discussed in the three-year plan. The big difference is that the students would have their vacation periods to rest and mature. One of the serious difficulties is that the faculty would have to be staggered as well as the students. In addition, even if the problem of faculty rotation could be successfully solved, the possibility still exists that a rotating faculty might have undesirable implications insofar as the education of the student is concerned. As noted before, an honors student might very much want to work under the direction of a particular faculty member, but might not be able to do so because during the year in which he is a senior this faculty member would not be available for the entire period. In fact, it might be that the student would be away one term and the faculty member the next. No doubt, other difficulties of a similar nature might arise under any system of faculty rotation. There would be the same pressures upon the physical facilities as were noted in the discussion of the three-year plan with one added complication. The change in composition of the student body at the end of each term would create many administrative problems, not the least of which would be the continual re-assignment of rooming space.

Another complication is the probable disruption of intercollegiate athletics since no student would be in college for the same terms through his college life. There are some who feel that this is an argument in favor of such a plan. However, there are possible variants which might help the situation. If the vacation periods are used as independent study periods (discussed in the next section) and if students are permitted to remain in residence, they might also be permitted to engage in athletics during any such term. (The three-year plan would eliminate freshman teams, but not affect the varsities, except that freshmen presumably would be eligible.)

We are inclined to feel that the staggered plan would involve a great deal of confusion and need greatly increased administrative activity. It would permit more students to attend Amherst without adding substantially to the problems of buildings. It would require an increase in the faculty. It would tend to weaken the unity of the community. It would not in fact preserve the long vacation as such, but provide more vacations which would add up

to the long vacation. We doubt if these are equivalent. The student's world is organized about a summer vacation. How he would use a vacation period in the fall, winter, or spring is anyone's speculation. We were quite uncertain of how valuable this would be, but are attracted by the thought of using these term vacations as independent study periods. In that case, the terms could be somewhat shorter than those suggested for the three-year program, depending upon how much credit would be given for the work done in the independent study period. This general idea deserves further consideration and we turn to it in the next chapter.

VIII. THE INDEPENDENT STUDY TERM

In 1957, the idea was approved by the Faculty of permitting a student to elect an individual reading course "under the direction and at the discretion of a member of the faculty . . . . The student will be on his own, will pursue an extensive program of independent reading, and will be subject to an examination at the end of the semester."

The first year was definitely an experiment. A considerable number of students elected the course in a wide variety of departments. It appears that students preferred to use the opportunity more for specialized and advanced exploration in their major field than for getting a quick look at unfamiliar territory. Although it had been one of the arguments in its favor, it did not appear to relieve the faculty greatly. The goal of starting a student with a reading list and not seeing him again until the end of the semester was seldom achieved.

We hope that experimentation will continue with the reading course idea. It may be related to the size of the College in two ways. First, we are not convinced that it cannot be so operated as to reduce the burden on the faculty. Since we regard the availability of faculty as the prime limitation on expansion, this could be a way of extending the educational product of a given number of faculty members. Secondly, the reading course might be used to reduce somewhat the steady beat of the academic rhythm of class attendance. This could be particularly important if the academic year were lengthened. If the student took a reading course in each of the last four terms, he would have some experience in self-education, he would spend less time in the classroom, and actual course enrollments would be reduced.

Individual reading courses as presently conceived take only a minor fraction of the student's time and in a sense must compete with other courses. Since these other courses involve regular meetings and the conventional tasks and tests while the reading course depends only upon the student's motivation (until the last days before the examination), it is not in the same class with the idea of the independent study term. This would mean that for a full term, the student would be on his own to work without faculty supervision. It is intended to encourage students to advance their educational development by their own efforts free from a dependent relationship upon an instructor. It is difficult to believe that a student has ever derived all that he should from a program of liberal studies if he has not learned the skill of self-development based upon a truly independent effort. He would have direction at the start which would provide him with a program but after that he would be on his own.

While the independent study term has interest as an educational device, it has a very direct bearing on the problem of the size of the College. The idea that the College might double in size by having two student bodies, one on campus and one away, seems to us to be a bit extreme. However, the independent study idea might be combined with one of the staggered schedules, so that part of the student body might be away for a term but be expected to undertake independent study during its absence. In order to permit an increase in the size of the College, reading periods would have to be so scheduled that some of the students would always be away, but this could be done under any of the schedules

described in the previous section. Since some credit would be given for these periods away, the time in residence could be less than 120 hours, which means that terms could be shorter.

It is conceivable, though perhaps not desirable, that the student should be given the opportunity of choosing to remain in residence or to engage in independent study away from the College. If a student should decide to remain in residence, he should be expected to pay for his board and room and any other relevant additional service fees. However, he would not be expected to have access to the faculty, which might create a rather difficult situation. The problem here would be largely one of dormitory and eating space. If these services were fully priced, this would not create any insuperable problem for the College.

One interesting variant is not to have this study period entirely independent, but to carry it on with perhaps one faculty member available for consultation with, say, each thirty students. This is of course much lower than the usual faculty-student ratio. It would mean that the group would have to be kept together, as is now done by those colleges with "year-abroad" programs. Since the number involved would be perhaps one-third of the student body, this becomes quite an enterprise.

It is also possible to provide a variety of elections for this interlude. If a student desires to spend time in a foreign country during his independent study term, arrangements should be made to accommodate this kind of interest coupled with some kind of independent study program. If a student can present a proposal for the use of the independent study term in any of a variety of ways, he might be permitted to do so provided it is clearly evident that his plan will contribute to his intellectual development and will be carried out.

The effective use of the independent study term will require some careful and laborious planning. The new committee on the re-examination of the curriculum at Amherst would be presented with an interesting challenge and might well discover, for one thing, that new educational practices would have to be instituted during early terms in order to prepare a student for his first efforts in independent study during the first independent study term. Curricular innovation may also be necessary in order that optimal benefits could be derived from additional independent study terms.

The independent study terms would incorporate something distinctive in an Amherst education which heretofore has been conspicuously absent in programs of higher education in America. The idea of serious reading while not in academic residence is part of the British tradition. It has real value in bridging the gap between habits developed in the college environment and behavior patterns outside. It seems clear to us that more of this kind of thing should be done. We might think of it in the first instance as doing something about the discontinuity of the summer vacation. A simple possibility as a starter would be to provide a reading list for the summer, either based upon and carrying on the courses which the student had just completed, or suggesting books with which every educated person ought to be familiar. The actual reading might be done on a voluntary basis without any system

of penalties or rewards. This is a minimum program and from here one can visualize many intermediate arrangements short of the full independent reading period. It is our belief, however, that there is great value in developing the process of self-education; that independent study would be an important offset to the present disciplined approach, and that incidentally it would permit the College to accept more students without corresponding pressure upon facilities or faculty.

IX. INCREASING THE STUDENT TURNOVER

It might be possible for Amherst to service more undergraduates if it did not keep such a high proportion of the entrants for a full four years. The figures on attrition (p. 5) show a very high degree of probability that, once he has entered, a student is fairly certain to graduate. It can be argued that the admissions officers cannot possibly be so omniscient about the applicants but that some will be admitted who prove to be of limited ability and others who are so poorly motivated that four comfortable years in college may be actually harmful for them as well as destructive of morale among their brethren. If more freshman and sophomores were weeded out, either a larger number could be admitted in the first place in order to provide a sufficient number of survivors for junior and senior year to maintain the overall size of the College, or their places could be filled by transfers who had proved their capacity somewhere else.

The present situation is of course largely a consequence of the wider selection available and the much more thorough job of screening. Although the general college average does not reflect any great change over time, there appear to be fewer who actually fail and more who barely pass. It may be that the faculty is inadvertently impressed by the declaration that no one is admitted to Amherst who cannot make the grade. There may be another bias which has crept into the minds of administrative officers in connection with the matter of expulsion for scholastic reasons, in that it is much more difficult than it used to be for an expellee to enter some other institution. However, regardless of the reason, the fact is that the attrition rate these days is unprecedently low. The fact that almost all entrants stay for four years tends to lower the number which can be admitted in the first place.

In defense of the present situation, the point is frequently made that many students are "late-bloomers," and that any early elimination might nip them in the bud. It is true that some students do not find themselves or their intellectual interest until after considerable residence. Many members of the faculty can cite cases where students who had seemed completely uninspired suddenly wake up. We are inclined to feel that these happy cases are the exception rather than the rule. The following table indicates the changes in the average for senior year as compared with the freshman year average for 221 students in a recent Amherst class.

Table XIII

Comparison of Senior Year with Freshman Year

Points difference in average grades		Number of students
Higher:	17-20	2
	13-16	4
	9-12	31
	5-8	58
	1-4	78
Unchanged		12
Lower:	1-4	29
	5-8	5
	9-12	2

In evaluating this table, it is important to note that the general college average for senior year is always well above that for freshman year, and that any student whose grades fall drastically enough would have been separated from the College and therefore not be recorded in this table. To the extent that grades are a measure of academic achievement, it would appear that while 6 in the class showed outstanding improvement, 36 did less well in senior year than in freshman year. In general, the table tends to support the argument for increased attrition rather than less.

If the rates of attrition were those of the twenties, when only two-thirds of the freshmen survived to senior year, the effect would be substantial. Assuming that those who left dropped out on the average of the end of two years, and that there were 1,000 students, a class would have needed to include 300 students in the first two years to provide classes for the last two years of 200 each. The number admitted each year would thus be increased by 20 per cent. If those leaving in an entering class of 250 were to be replaced by transfers, then 83 transfers could be admitted, merely to maintain the size of the class through the four years.

It was very difficult for us to visualize any such turnover in the present-day student body in Amherst. However, we do have a feeling that we have gone too far in making residence in Amherst secure, in a world where there is such a demand for education and where human potentialities are still only imperfectly predictable. We would expect there to be a larger number of cases than are now recognized where both the student and the College would be better off if they were separated. We are not ready to suggest ways and means for such an operation except that we doubt the utility of any formula such as that the lowest ten per cent by average grade should be dropped at the end of sophomore year or that the class should be reduced to some previously established smaller size. In an academic world which relies heavily upon competitive incentives, we hesitate to add to the emphasis upon grades. However, it does not seem unjustified to be rather stern about requiring some demonstration of benefit from life in Amherst. We feel that it should be generally understood that Amherst College is a place for serious learning, and that the community feels no obligation to provide a haven for individuals of limited capacity or interest.

One other possibility has been suggested which is related to the constitution of the student body, and that is the admission of students with advanced credit. In recent years, many colleges, including Amherst, have participated in the Advanced Placement Examination Program and have given recognition to advanced work done in certain qualified preparatory schools. This would have a bearing on our problem, if it resulted in students graduating with less than four years of residence.

We did not explore this possibility in sufficient detail to have any conclusive answer. We certainly agree that students should not be required to do work over again if already done under competent direction. However, the Amherst program is designed as a whole. No preparatory school offers an equivalent of its freshman year. Our reaction therefore has been to suggest that advanced placement should be recognized as permitting a student to leap-frog into more advanced courses than might otherwise be the case. Thus he could go further in Amherst in four years than might some other student. We are inclined to feel that the four years of residence is even more significant for the particularly able student, since a successful liberal arts education has a kind of feed-back and feed-across which makes it more than cumulative in its achievement. There is of course no special authority for the four-year period. However, we are not ready to conceive of a liberal arts education as a specific undertaking which one man can do in two years, another in four, and another in six. We would prefer to define it as as much development as is possible in whatever is the socially established interval of time, and let the brilliant students get more out of their exposure. Thus, while approving of the idea of advanced placement, we would hope that this would not lead to the shortening of a student's life in the Amherst community, but rather to increasing his achievement.

X. EXTRA-COMMUNITY EXPANSION

Still another type of suggestion remains to be considered, stemming from the fact that Amherst, Mt. Holyoke, Smith, and the University of Massachusetts are all fairly near to one another. The first possibility created by this situation is that there be a much more intensive effort to share resources in such ways as to increase their utilization or to obtain economies. Up to the present, the development of the common deposit library has been most noteworthy, though there is also some faculty and student interchange. We suspect that, from a resources point of view, there is some wasteful duplication of faculty effort in underpopulated courses, and that as faculties change in the course of time, some integration might take place in these areas. However, departments with large enrollments are likely to utilize their members to the full and the possible savings by specialization or interchange are therefore quite limited. A further limitation is created by the fact that the institutions do not have a common core in their curricula, and therefore the students, in addition to other differences, come to advanced courses with different preparatory experiences. Finally, the problem of scheduling, difficult enough within one institution, seems to become even more troublesome in inter-institutional arrangements, especially with Smith College operating on a split week rather than a staggered schedule. If any of the four institutions should go to a quarter, or trimester, system, the problem would be even more difficult. All in all, we feel that we can look for only limited help for our problem of handling more students by increased interchange among the four institutions, though some slight advantages may be gained.

Another more promising suggestion is that a new institution be established at some central point under the aegis of the four institutions. Starting fresh, it would have no limiting traditions or established and accepted habit patterns. It might be a small experimental college which could try out various methods whereby students took much more responsibility for their own education; it might experiment with student interchange; it might try some entirely different way of structuring the curriculum or of organizing a student's time. It might provide for the earlier grades of work on its own campus and have its students take much of their advanced work in the smaller classes in the parent institutions.

These ideas assume that the four colleges have surplus time and energy to contribute to the undertaking. Otherwise, the point of the arrangement seems rather tenuous. Undoubtedly, there are teachers in each of the four colleges who could easily handle more students than they do now. This is less likely to be the case, however, in the popular departments. Reliance on the four faculties to function in the conventional pattern would be likely to add to the burdens of those already overburdened, while the room for expansion is mostly in the areas for which the student demand is more limited. Nevertheless, there is the possibility of considerable saving, and the student in the new college, with ready access to all four colleges, might have a rich educational experience indeed.

There are other savings than faculty which might be more tangible. Possibly much of the administrative responsibility could be assumed by the present staffs with some expansion at the lower level. The admissions office of the cooperating institutions might be utilized. Emeriti faculty, who wished to stay in the area, could be used without upsetting the rules and regulations of the established colleges. And much of the specialized equipment and library resources would not need to be duplicated, once organized transportation had been established.

We are particularly interested in this idea, if the central purpose is not to establish a college which would merely be an extension of the others along conventional lines. Within the four are many imaginative individuals who might be very glad to participate in an experimental undertaking. For example, it is possible that much could be done with a closed TV circuit, and the students at New College could get live TV directly from classrooms in the colleges. But we need not explore these ideas further, since we understand that a committee of representatives of the four colleges has been established to study this possibility.

As a possible extension of this idea of a new college, and one which might have a real bearing upon the size of the four parent institutions, we would hope that the planning might consider the development of a common teaching-graduate school for the four institutions. Compared with most universities, the three Connecticut Valley colleges are handicapped by the fact that they do not have a ready supply of graduate students to act as research or teaching assistants. The proposed institution would not seek to attract graduate students except in such number as could be used as teaching assistants in one or another of the participating institutions. It would not be an effort to set up just another graduate school, where the danger would be that it might compete with the undergraduate schools for faculty interest. It would be clearly limited in size. Since all the students would be engaged in teaching, it would be appropriate to include specific training in teaching method. Such an institution might well have a separate but convenient location and

a small skeleton staff of its own. From among the several institutions, it could easily command a teaching faculty which would be first rate. And the bringing together of these graduate students working in many fields in an institution virtually of their own might have important results as against the groups isolated according to discipline in the graduate schools in large institutions. Certainly, it also would provide an opportunity for some interesting experimentation. This idea also we commend for further exploration.

XI. SUMMARY AND CONCLUSIONS

It seems obvious that Amherst cannot make any large quantitative contribution to the nation's educational problem. Nor is it Amherst's obligation to service some fixed percentage, however infinitesimal, of those seeking a college education. Amherst does have a duty to perform and a contribution to make. Its duty is to use its resources efficiently and effectively. Its contribution is to provide a continuing demonstration of what quality means in the educational process. This also means that it must always be seeking and welcoming new or improved educational methods and ideas.

Our examination of the relationship of size to the educational process has led us to the conclusion that Amherst might be somewhat larger without any serious impairment of its basic values. It would still be a small college, with its character shaped by the fact that it is in a small community and that it focuses its efforts on a single purpose, that of facilitating a liberal education. We feel that if pressures for expansion prove to be important, it might be possible to expand so long as resources are available and safeguards to quality are carefully maintained.

We are much more pessimistic when we consider the problem in terms of resources. Amherst education in its present form is made possible by a substantial endowment, generous alumni, an excellent plant, and a relatively large, high-level faculty. Nevertheless, we feel that in some respects the present plant is inadequate for the existing student population (circa 1050), a condition particularly reflected in overcrowded living. Not only must there be some expansion of plant properly to service the present size, but with any appreciable increase in student body over the present level, various other additions would be required. Before any definitive position can be taken with respect to expansion, we feel that a careful study must be made of what additions to plant and facilities would be required at different size levels. We suspect that some addition to student population could be made without a proportionate increase in facilities, but that there is some point at which nearly all facilities would become inadequate and the process of expansion would be exceedingly costly. We should not like to see an expansion program which did not contemplate adequate provision for at least the basic requirements of student living and eating space, and library, classroom, and laboratory facilities.

An even more difficult resource problem is that of faculty. Obtaining bricks is a matter of having funds which can be used to purchase them from a virtually unlimited supply. But the number of experienced faculty members is limited and the supply is certain to become increasingly scarce relative to the demand. While Amherst,

if it had the funds to do so, might expand its faculty by attracting faculty members from other institutions, this can hardly be regarded as contributing to a solution of the national situation. Although there are some advantages to be derived from a larger faculty, we have felt that we should not develop any program involving an increase in Amherst faculty size, except perhaps at the lower levels, since one can hope that the rapid rise in salaries will soon attract a larger number of college graduates into teaching. This clearly raises the problem of whether or not it is possible to maintain the present quality of education with an increase in the size of the student body and without a parallel increase in faculty size.

The problem of faculty utilization is inextricably entangled with educational program and procedures, as exemplified in the curriculum. The results of the work of the new faculty committee in reviewing the curriculum will be important to the issue of size. In the past, it has been possible to consider curriculum problems without any significant limitation as to faculty availability. However, the economical use of faculty must be an increasingly important consideration in the future. We have suggested some angles of this problem in earlier sections of this report, but at the moment can only emphasize the point that the shape and nature of the curriculum is intimately related to the problem of size.

We have also considered the possibility of enlarging the student body by extending the college calendar. We found much to be said for an accelerated program with graduation after three years. We were attracted by a staggered schedule with independent study periods during the term vacations. Both would require many changes in Amherst and probably with more likelihood of loss than gain in quality and the sense of community. To be sure, these changes in the college calendar would mean a greater utilization of the college buildings and grounds. On the other hand, like any other plan for increasing the college enrollment, they would necessitate an expansion of endowment income, annual gifts, and to some extent the faculty.

We were particularly attracted by the possibility of a cooperative effort to establish an experimental college in the Connecticut Valley. However the choices before the College involve judgments which reach into all phases of Amherst and beyond Amherst - the value or waste of vacation time, the gain or loss from acceleration, the possibilities of adding to bricks and brains, and the degree of responsibility for meeting the increasing demand for a liberal education.

This report is clearly only a starting point. We have raised a number of problems which seem to us to be relevant to the question of size. Many of the same issues will be explored from a different angle by the committee studying the curriculum, and from still another angle by the committee exploring the possibilities of a new college. All these reports will be widely discussed. Luckily, there is no emergency in the short-run time sense and these matters can be considered thoroughly and carefully. Gradually we will work toward a clearer picture in the sincere effort to serve and build "the fairest college of them all."